

**National Coordination Center SPARC
Indian Institute of Technology Kharagpur**

January 2025

**Call for Proposals for SPARC – GIANT
Last Date of Submission 11th February 2025 18.00 Hrs IST**

German Indian Academic Network for Tomorrow under the Scheme for Promotion of
Academic & Research Collaboration (SPARC - GIANT)

Preamble:

Since the inception of the program in 2018, “The Scheme for Promotion of Academic and Research Collaboration” (SPARC) aims at improving the research ecosystem of India’s Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and / or international relevance.

Recognizing the importance of fostering academic cooperation and enhancing research and innovation on an international scale, the Indian Institute of Technology Kharagpur (IIT Kharagpur), on behalf of the Ministry of Education, Government of India and the German Academic Exchange Service (DAAD) - have agreed to initiate the program titled German Indian Academic Network for Tomorrow (GIANT) incorporating it with the existing SPARC program of the Ministry of Education, Government of India.

Purpose

The program is aimed at fostering academic mobility (students and faculty members), promoting joint research and deepening academic collaboration that will contribute to the knowledge-based economy and societal progress in both countries. Greater linkage in the field of education and research would be mutually beneficial and contribute to the development of sustainable solutions to global challenges.

Objectives

The primary objectives of the SPARC – GIANT program are as follows:

- To enhance long-term partnerships between German and Indian institutions of higher education by promoting and supporting academic and research collaboration.
- To enhance the academic and research mobility between Germany and India.
- To contribute significantly to the internationalization strategies of the participating institutions of Higher Education to promote Germany and India as study and research destinations
- To support the development of innovative curricula and courses for internationally trained students and early career researchers
- To empower women by ensuring their participation and developing inclusive formats focusing on their talent and research skill development.

Schemes and Areas of Cooperation

The program intends to cooperate around the following schemes:

1. **Student Mobility Programs:** Facilitate the exchange of students from India and Germany at various academic levels.
2. **Research Collaborations:** Encourage joint research projects and initiatives that align with the academic and developmental priorities of both countries. This includes sharing knowledge, data, resources and having joint publication.
3. **Faculty Exchange:** Promote the exchange of faculty members to foster knowledge sharing and collaboration in teaching and research activities.
4. **Capacity Building and Curricula Development:** Organize workshops, training programs, and seminars that enhance teaching methodologies, research capabilities, and innovation processes.
5. **International Workshops:** Increase visibility of Germany and India as study and research destinations and disseminate the outcomes of the academic collaboration

The joint partnership program SPARC - GIANT will be open in the following areas:

- Energy, Sustainability and Climate
- Smart Cities & Mobility
- Healthcare and MedTech
- Supercomputing, AI, Quantum Computing
- Advanced Manufacturing & Industry 4.0
- Semiconductor and New Materials

The proposal will address a topic in any of the above six themes and address a challenging issue of theoretical, experimental and/or translational value. The proposal will be evaluated upon quality / relevance of the area proposed, joint strength of the teams, proposed outcome & deliverables, available and complementary experimental/ infrastructure in the institutions.

Applications are not limited to STEM disciplines; Faculty members from the field of social sciences and humanities are also welcome to apply, provided their projects are aligned with the specified areas, such as examining the ethical, socio-economic, or legislative implications of the respective scientific teaching and research.

Preference will be given to teams that do not have/had any SPARC projects presently/ before.

Eligible Institutions

For Germany: All government-recognized institutions of Higher Education in Germany may apply.

For India: All Indian Institutions ranked in the overall top 100 or category-wise top 100 in the India Rankings (NIRF), all Central Universities and Institutes of National Importance, as per SPARC eligibility criteria are eligible to apply.

German universities need to submit their application via the DAAD portal upon the opening of the GIANT program call. Indian Principal Investigator (PI) needs to submit their application to the SPARC portal maintained by IIT Kharagpur.

Only applications that have been submitted parallel to both portals will be considered. Late or incomplete applications will not be accepted.

Project Team

For each project, there has to be:

- 1) One Indian Principal Investigator (PI), who has to be from one of the Eligible Institutes and must have a permanent position. Assistant Professors on Contract and Post docs are not eligible to become PI.
- 2) Upto two Indian Co-Principal Investigator (Co-PI), who has to be from one of the Eligible Institutes. Assistant Professors on Contract are eligible but Post docs are not eligible to become Co-PI. Co-PI also has to attach her/his letter of endorsement along with the final project proposal document. The Institute of the Co-PI can be different from that of the PI but has to be one of the eligible Institute for SAPRC-GIANT, as listed earlier.
- 3) One Faculty member from Germany will be the International PI (as per eligibility criteria set by DAAD) and up to two International Co-PI. SPARC funding can be given to a maximum of 3 German Faculty members (One PI and two Co-PI at max).
- 4) From Indian side, the visit of (preferably) two (2) students to Germany can be supported. The minimum duration of a student visit has to be 1 month and maximum duration can be 6 months. Only post graduate/ PhD student who are registered as full-time students in their respective institution (institute of the PI and/or Co-PI) are eligible. Full time Undergraduate/ Postgraduate students of the PI/Co-PI institute can be considered under exceptional circumstances, preferably when their visit to Germany will be a part of a "Semester Away Program". This will require approval from the National Coordinator of SPARC and will be approved on a case to case basis only.
- 5) In exceptional cases the visit of upto 10 Indian students per project to Germany can be supported for a short term (7 days to 15 days) for attending summer/winter-school/workshop/conferences and so on. Clear justification for such visits including the exact number of such Indian student visit must be clearly explained in the project proposal. Any such visit will also require specific approvals from the National Coordinator of SPARC before the commencement of the trip.
- 6) The Indian PI/Co-PI can host German students, who are registered students or in the Institute of the German PI/Co-PI. Maximum number of student visitors that can be allowed from Germany will be limited to 10 per project.

Project Execution:

- **Essential Components:**
 - i. At least one visit by each German Faculty to the Indian Institutes (Institute of the PI and or Co-PI) during the duration of the project.
 - ii. Each visit can be of a duration varying between 07 days to 1 month.
 - iii. During each visit, in addition to carrying out the project related collaboration and research the Foreign Faculty will Co-develop course

content and teach one course on the topic of the proposal for 8 to 36 hours depending on the period of stay and participation in SPARC workshops.

- **Optional Components:**

- i. Visits by Indian students for training and experimentation in premier laboratories in Germany. Support to Indian research students for long term visits of up to 6 months to the partner German collaborator for carrying out experiments and getting trained in an advanced laboratory facility.
- ii. Visit of German students to the Institute of the PI.

IPR Clause

The IPR developed out of the project will be decided as per norms of the participating Institutes. The Indian Institute should get the benefits out of Patents / Royalty, rather than the foreign institute or the individual faculty. All disputes must have Indian jurisdiction and applicable laws of India (for any act taking place in India) to be clearly defined by the parties. Any special deviation must be resolved by MOE through the SPARC Liaison cell and approved by the Apex Committee.

Undertaking:

Each proposal will clearly state that this proposal does not duplicate any other similar proposal funded by the Government of India which funds the same aspects of SPARC including but not limited to those partially or fully funded by MOE, DST, DBT and other Ministries of the Government of India. Complementary ongoing projects will be separately indicated.

Mid Term Review:

All projects will be monitored and reviewed once mid-way and once at the end of the project to evaluate progress and final outcome. Institutes will keep on updating real time progress on the SPARC portal.

Clearance from Ministry of External Affairs, Government of India:

For every visit by a German Faculty member or student, appropriate clearance must be taken from the Ministry of external Affairs, GoI by the Institute of the Indian PI.

Financial Framework and Timeline

Project funding will initially be granted for one year starting from April 1st, 2025. The continuation of funding beyond April 1st, 2026, is subject to the availability of funds on both sides.

Funding from SPARC

- i. The minimum duration of the visit of an international faculty is 07 days (7 days stay in the Indian Institute of PI/ Co-PI) for a research project. The maximum duration of stay for an international faculty can be up to 2 months during every visit. **The total combined duration of stay of all the German Faculty in the institute of PI/Co-PI must vary between 1 month and 3 months, over the entire duration of the project.**

- ii. Each German faculty can visit up to a maximum of two times over the entire duration of the project.
- iii. For German faculty members and students visiting India, air fare will be paid by DAAD.

iv. Allowance for German Faculty visiting India:

a) For 7 days stay: **USD 3,000** (Minimum duration of stay is 7 working days in the Institute of PI/Co-PI). No honorarium will be paid if the faculty stays for less than 7 days)

b) For any duration more than 7 days:

USD 3,000 + USD 333 per day for $(n - 7)$ days, where n is the number of days spent in the Indian Institute, excluding days of travel. The maximum duration for a single stay can be one month.

The above payment will include the charge of accommodation and lodging at the Indian host Institute and any national travel within India (for example travel between Institutes of PI and Co-PI, if they are different), which will be deducted by the host Institute at actuals. The rest of the amount will be paid to the German Visiting Faculty as honorarium **after deduction of tax at source as per Government of India norms**. Only the German PI/Co-PI named in the project are eligible to receive funding from SPARC.

- v. For the visit of an Indian student to the German Institution, the funding support will include return international air fare by economy class, visa charges, and travel insurance (all at actuals), and the total amount will be limited to USD 2,000. German partner will provide support i.e. local hospitality (boarding/lodging) as per DAAD rate. Duration of the student visit will be up to six (6) months. Minimum duration of an Indian student visit to Germany must be 1 month.
- vi. Up to Rs 10 lakhs will be approved for workshops and conferences. Institutions may invite participants from other relevant universities, institutions, polytechnics, etc. A maximum of 2 workshops can be hosted as a part of one project at the location of either the PI or the Co-PI institute. Workshop must be held when the German PI and/or the German Co-PI is physically present in India. There is no separate honorarium to the International Faculty for participating in the workshop.
- vii. No travel money shall be paid for the visit of a foreign student to India from SPARC funds. However, during their visit they will be entitled to a Daily allowance will be Rs 1,000/- per day for Ph.D. students and Rs 400/- per day for masters/ undergraduate students. It is expected that the International student will be provided free hostel facility. It can also be reimbursed from the contingency grant of the project.
- viii. For visit of Indian faculty (PI/Co-PI) abroad in connection with a research project or workshop or training, Cumulative Professional Development Allowance (CPDA) have to be utilized.
- ix. However, if the Indian PI/Co-PI Institute does not have the provision of CPDA, additional funds will be provided from SPARC grant for the visit of the PI/Co-PI. A formal certificate signed by the Registrar of the PI Institute

must be submitted to the National Coordinator of SPARC to avail this additional funding. Such a PI/Co-PI can get support only once during the entire duration of the project. The funding support will include return international air fare by economy class, visa charges, and travel insurance (all at actuals), and the total amount will be limited to USD 2,000. German partner will provide support i.e. local hospitality (boarding/lodging) as per DAAD rate. The maximum of stay for an Indian faculty will be up to 1 month.

- x. The above clause (written in point ix) will also be applicable to a PI/Co-PI from an Institute which have the provision of CPDA but the PI/Co-PI has exhausted/ does not have adequate balance in the CPDA account. In such a case a formal certificate signed by the Registrar of the PI/Co-PI Institute must be submitted to the National Coordinator of SPARC to avail this additional funding. Such a PI/Co-PI can get support only once during the entire duration of the project. The funding support will include return international air fare by economy class, visa charges, and travel insurance (all at actuals), and the total amount will be limited to USD 2,000. German partner will provide support i.e. local hospitality (boarding/lodging) as per DAAD rate. The maximum of stay for an Indian faculty will be up to 1 month.
- xi. Overhead and contingency expense of up to 20% of the sum cost of other items mentioned above or Rs 15 lakhs (whichever is lower). Out of the total money identified for "Overhead and contingency", 20% will be earmarked as "contingency" which can be used for purchasing accessories, consumables, chemicals, video recording, field work, documentation, local travel in India and so on. The remaining 80% of this grant will be treated as "Overhead" and will be considered as institutional costs.
- xii. As mentioned in the "financial framework part" the funds are available till 31st March 2026 as of now, the proposals must be planned and the budget must be split up in two parts, which must include visits/ workshop in first year and second year separately.
- xiii. No equipment of any sort will be supported under any SPARC - GIANT project. International travel of Indian Faculty will not be supported under this project under normal circumstances. There is no budget for consumables or field work.
- xiv. No scholarship/stipend of Indian scholars will be supported under this proposal. They will continue to receive their regular mode of remuneration (as applicable) from their respective institutions and will continue to draw the same even when they are visiting Germany in connection with the project.

Review and Selection of Proposals:

The review process will be as follows:

- a) National coordinator (NC) will select a coordinator for reviewing each theme, who will act as the chair of the "Thematic Review Committee" (TRC).
- b) The chair of the TRC will select other members of the committee (at least 3 more members), in consultation with the NC.
- c) The National Coordinator will assign all the projects submitted to a particular theme to the respective "Thematic Review Committee".

- d) The “Thematic Review Committee” will invite peers and assign the projects to them for review.
- e) Based on the referee input there will be provision for submitting a revised version of the project.
- f) The projects will be graded based on the referee input, and the decision of the “Thematic Review Committee” will be forwarded to the National Coordinator of SPARC.
- g) There will be a coordination meeting with DAAD for finalization of the results.
- h) The final approval of the projects will be given by SPARC Apex Committee.

Expected Outcomes

The SPARC - GIANT Scheme is expected to have a major impact in the following areas:

1. Providing the best international expertise in solving major national problems.
2. Help Indian academicians and researchers unravel deep and open research problems with the help of the best collaborators in Germany.
3. Enable long-term stay for international faculty the simultaneously helps in academic interactions, research collaborations, niche course development.
4. Produce a large volume of educational and research content in terms of high quality journal publications, text books, research monographs, patents, demonstrable technologies, products that are jointly authored by Indian and Foreign collaborators.
5. Have strong thematic interactions which enable students in the country interact with high quality research groups through Workshops held in India
6. Enable most of the top ranked Indian Institutions to develop academic and research collaboration with institutions in Germany.
7. Improve International Rankings of Indian Institutions through a combination of internationalization, research outcomes and academic interactions. Develop a set of success stories that can enable International agencies, Indian industries, partner ministries support follow up projects.
8. Develop strong Bilateral relationships in academics and research with top countries in Germany.
9. Create a major International impact for catapulting Indian Academics and Research and help make it competitive with the best worldwide.
10. A set of tangible earmarked deliverables of the collaborative efforts on the proposed topic consisting of joint research outcomes including but not limited to two or more of the following: - top journal publications, text books, research monographs, patents, products, scaled up pilot plants/ demonstration units, course materials, etc.

For any further clarification please mail to support@sparc.iitkgp.ac.in with a copy to rabibrata@che.iitkgp.ac.in
